indefinite in that it fails to point out what is included or excluded by the claim language.

In reply thereto, applicant amended the claims, as mentioned above.

In paragraphs 8 and 9 of the Office action, it is stated that claims 63-68 are rejected under 35 U.S.C. 112, second paragraph, as being anticipated by O'Dell, U.S. Pat. No. 5109352, 4/92.

In reply thereto, applicant makes the following comments.

In the U.S. Patent# 5109352, " 疋 " is neither a stem/root, nor one of Japanese characters, and only exists as part of some specific Japanese characters.   Each Japanese character in Figure 5 of U.S. Patent, has no particular relation to each other, and they have different meanings in Japanese, as follows.

Characters	Meaning	Data String
距	— means "distance"	12313131.3233
踊	— means "dance"	12313132.412331
踐	— means "practice"	12313133.33444
路	— means "road"	123131342.4123
跡	— means "site"	123131343.4744
跳	— means "jump"	123131344.4844
踏	— means "step"	12313137.2441233

The inventor of U.S. Patent# 5109352 discovered that some characters are uniquely identifiable in the examples shown in the patent documents. However, its method is incomplete and illogical, e.g. some Japanese kanji characters never have a chance to appear on the display according to the method in the Patent No. 5109352, as it has no way to distinguish between 口 and ㅂ   of 踊, between 中 and � symbol of 踊, between 叫   and ㄹ of 踊, unless the operator forces to continue to input after having many characters on the display. So many Japanese characters may appear on the display, at the time of each input, regardless of what was anticipated by the operator. In spite of the discovery that some characters are uniquely identifiable in the examples shown, its method is actually equivalent to a conventional method, having features to input a character from a keyboard, and has a common way to accept a leading part of word from the keyboard, compare the entered characters with the contents in a table or in a

dictionary, display all matched words/characters on the display, and an operator may be able to select on the display, due to the method stated in the U.S. Patent No. 5109352.

Also, word stemming means taking the stem of a word and generating common variants of the word. For example, Search, Searching, and Searches all have Search as the root stem. As an another example, if the search text is "throws" then the word stem is "throw" and common variants of this stem include "thrower", "throwers", and "throwing." Therefore, " 𤴓 " in this case, is neither stem/root, nor Japanese character. It is one of the radicals for Japanese kanji characters, and those radicals do not necessarily form a leading part of Japanese kanji characters. Figure 5 - examples of U.S. patent #5109352 do not mean the stem, as "茄 for 刀 (Radical)", "妾 for 女 (Radical)", "惣 for 心 (Radical)", "拠 for 几 (Radical)" are Japanese radicals which do not necessarily form a leading part of the Japanese character.

U.S. Patent # 5109352, Figure 5:

CHARACTERS,	MEANINGS,	DATA STRINGS
距	— means "distance"	12313131.3233
踊	— means "dance"	12313132.412331
践	— means "practice"	12313133.33444
路	— means "road"	123131342.4123
跡	— means "site"	123131343.4744
跳	— means "jump"	123131344.4844
踏	— means "step"	12313137.2441233

According to the method of Patent# 5109352, as one of examples, followings inevitably take place, prior to reaching and getting one of such characters as 距、踊、践、路、跡、etc in Figure 5 of #5109325.

It is illogical that the following take place, regardless of what was anticipated by the operator.

. (Examples)

After typing codes upto ｌ ｺ ー , 口 appears on the display,

< At this point, operator's action is necessary to continue the input process,

prior to reaching characters below >

and, after typing codes upto ｜ㄱ－｜ , 中 appears on the display,

　＜At this point, operator's action is necessary to continue the input
process,
　prior to reaching characters below ＞
　and, after typing codes upto ｜ㄱ－｜－｜ , 叫 appears on the display,
　＜At this point, operator's action is necessary to continue the input
process,
　prior to reaching characters below,
　　　　＊＊＊　口、中、叫 are frequently used Japanese characters.
　　In this case,　　ロ　　of 足　equals to 口
　　　　　　　　　　ヤ　　of 足　equals to 中
　　　　　　　　　　ｹ　of 足　equals to 叫

Regarding the random access manner, there are two fundamental methods
of storing and accessing data - sequential and/or random. In case of a small
table or a dictionary, data are stored and accessible, one by one, from
the beginning of stored data area. This is called Sequential access which
is like the followings, being in sequence of data strings (12313131.3233,
12313132.412331, 12313133.33444, etc, as shown below), and those could
actually be searched by the Indexed Sequential Access method (ISAM), or
Binary Search method. Indexed Sequential Access method creates index
records corresponding to data records, and usually takes Binary Search
method to be quick in searching index records for data records, as well
as the ISAM (Indexed Sequential Access Method).

CHARACTERS　MEANINGS　　DATA STRINGS - being in ascending order

距 - means "distance"　12313131.3233
踊 - means "dance"　　 12313132.412331
践 - means "practice"　12313133.33444
路 - means "road"　　　123131342.4123
跡 - means "site"　　　123131343.4744
跳 - means "jump"　　　123131344.4844
踏 - means "step"　　　12313137.2441233

In case of "Random access or Direct access" method, data are not
sequentially stored. Instead, data are stored in a specific location of
data area which is determined to be there, by converting part of data into

some specific position information in the area to store data. A problem
may occur by converting and assigning same location to the plenty of data
to store and retrieve during the above conversion, but those can be managed
to reallocate and make an additional links for them, to later access
properly.

In the present invention, as an example, data are to be mainly
organized in the sequential manner and accessed by "Binary Search" method
to retrieve data record directly, collating the entered data with those
in the middle of area in the dictionary, dividing data area into 2 and
utilizing a first part or a latter part to retrieve next, depending on the
result of collation which was made previously to compare the input data
with those in the dictionary. For example, data could be stored in a manner
that, in the area allocated, e.g., 123131343.4744, some other data,
1231313233, some other data, some other data, 1331342.4123,,,,etc, and
its location is determined by randomizing the value of data key. Then, the
above mentioned matters are not related to the method by O'Dell.

In paragraphs 10 and 11 of the Office action, it is stated that claims
69-72 and 79-82 are rejected under 35 U.S.C 103(a) as being unpatentable
over O'Dell in view of Shimizu et al., U.S. Pat. No. 5,870,492, 2/99 (filed
6/92).

In reply thereto, applicant makes the following comments.

U. S. Patent No, 5870492 relates to an improvement in handwriting
character entry apparatus, mentioning the type which has an input device
for inputting hand-written characters and a display device, wherein
hand-written character pattern inputted by the input device is recognized
and a plurality of candidate characters having configurations similar to
that of the recognized character pattern are extracted and standard
character pattern corresponding to the candidate characters are displayed
for selection on the display device, and one of the displayed plural
candidate characters that is the intended character for the inscribed
character is selected by an operator, pressing a stylus against the
inscribed character. It is similar to a conventional method in that
candidate characters are displayed for selection on the display device.

The method of U.S. Pat. No. 5870492 (Shimizu) is not related to the
present invention.

In paragraph of 12 of the Office action, it is stated that applicant's arguments filed June 12, 2001 have been fully considered but they are not persuasive.

In reply thereto, applicant makes the following comments, in addition to what is mentioned above for paragraphs 8 and 9 of the Office action.

It is stated in the U.S. Patent No. 5109352 (O'Dell) that, in col. 8, line 24+ of U.S. Patent No, 5109352, "As shown in Fig. 1A, the possible strokes used in Chinese characters or Japanese Kanji characters are grouped into seven groups, with most of the possible strokes within each group shown within a square, with each group given a code number.", and also, in col. 10, line 20, "This invention utilizes the discovery that, when classified in accordance with the classification scheme of Fig. 1A, most Chinese characters and Japanese Kanji characters can be uniquely identified by strings of code numbers where the number of code numbers is usually less than the number of strokes in the character. In reference to the top character in Fig. 5, for example, the string 12313131 is adequate in identifying the character and the remaining four code numbers 3233 are really not necessary for identifying the character.", and also, in col. 20, line 64+, (in claim 1), "first means for storing a plurality of strings of code numbers, each string representing a character in the collection, wherein the strokes that make up the characters of the collection are classified into a plurality of groups of one or more strokes, each group corresponding to a predetermined code number, each number in a string representing one of the strokes of the appropriate group,,,,, etc." Fig. 1A is a table setting forth the seven categories of strokes for Chinese characters to illustrate the preferred embodiment of the invention, as stated in the specification of U.S. Pat. No. 5109352.

Applicant insists that, for example, according to O'Dell method, there is no way to distinguish between 口 and ㅂ of 踊, between 中 and 尸 of 踊, between 叫 and 尸 of 踊, and unknown results would occur, regardless of what was anticipated by the operator, and it is incomplete and illogical.

In paragraph of 13 of the Office action, it is stated that the prior art made of record and not relied upon is considered pertinent to applicant's

disclosure.

Following (1), (2), (3), and (4)-above-mentioned- are not comparable to the present invention.

(1) U.S. Pat. 5828783

It is stated, in col. 2, line 29, that "The simple hand-written input system relying upon the above-mentioned conventional character pattern-learning function involves the following problems. (1) An expensive storage medium must be used as a medium for storing a recognition dictionary registered by the user. (2) Recognition performance is not high for recognizing the character pattern registered by the user. (3) The operation of registering the character pattern is cumbersome.", and, in col. 3, line 30, that "The object of the invention is to provide a system for input-processing hand-written data which is free from the above-mentioned problems, and enables complex character strings and command strings to be input through a simple hand-written procedure. According to the present invention (U.S. Pat. 5828783), there is provided an apparatus for input-processing hand-written data in a computer system, having a hand-written character input unit and a hand-written character recognition unit, comprising a registration unit for registering an input element such as any character string, command string or a figure designated by a user in relation to any recognizable character, a stroke detection unit for detecting the presence of a particular one or a plurality of strokes that satisfy a predetermined condition from the pattern of a hand-written character that is input.", and in col. 6, line 1, that "According to the present invention (U.S. Pat. 5828783), the pattern of the hand-written character is not entirely registered but, instead, a combination of a recognizable character and an input element only is registered. Then, a stroke(group) that can be easily recognized is written down being added to the recognizable character, in order that an input element that is registered in advance can be input."

Above-mentioned features of the U.S. Pat. No. 5828783 are not related to the present invention.

(2) U.S. Pat. No. 5592565

It is stated, in col. 1, line 11 of U.S. Pat. No. 5592565, that "The present invention relates to a hand-written character recognition apparatus, and more particularly to a hand-written character recognition

apparatus having a personal dictionary preparation function.", and in col. 2, line 16, that "In a character recognition apparatus having a personal dictionary preparation function in accordance with the present invention (U.S. Pat. No. 5592565), a standard dictionary in the hand-written character recognition apparatus and a pre-registered personal dictionary are used, and a character to be registered is entered by hand-writing, and a character code which is a recognition result (character recognition result is a character code having one-to-one correspondence to the input character) is used as the character code to be registered. Reading of the character is entered by a character menu or character recognition, and a result of KANA/KANJI conversion of the reading or a character code selected from a character sequence list displayed around the character corresponding to the reading is selected as the character code to be registered."

Above-mentioned features of the U.S. Pat. No. 5592565 are not related to the present invention.

(3) U.S. Pat. No. 5113452

It is stated, in col. 1, line 6 of U.S. Pat. No. 5113452, that "The present invention relates generally to a character recognition apparatus and method and more particularly to an on-line hand-written character recognition apparatus and method capable of recognizing a hand-written character such as a distorted hand-written character and the like.", and, in col. 1, line 56, that "According to an aspect of the present invention (U.S. Pat. 5113452), there is provided a hand-written character recognition apparatus, and a corresponding method of its operation, comprising means for receiving dot obtained when writing a character and for generating corresponding line element data therefrom and character dictionary data base means which stores character data as command instruction sets each expressing the configuration of a different character, the character data including tracing commands for extracting sub-stroke data from the line element data, sub-stroke data selecting commands for selecting one or more sub-stroke data for later evaluation processing, and checking commands for partially evaluating the thus selected one or more sub-stroke data by making a comparison to a partial shape of a standard character, and for totally evaluating the hand-written character by comparing it to the standard character."

Above-mentioned features of the U.S. Pat. No. 5113452 are not related
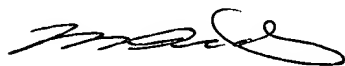
to the present invention.

(4) U.S. Pat. No. 5870492

U.S. Patent No, 5870492 relates to an improvement in handwriting character entry apparatus, mentioning the type which has an input device for inputting hand-written characters and a display device, wherein hand-written character pattern inputted by the input device is recognized and a plurality of candidate characters having configurations similar to that of the recognized character pattern are extracted and standard character pattern corresponding to the candidate characters are displayed for selection on the display device, and one of the displayed plural candidate characters that is the intended character for the inscribed character is selected by an operator, pressing a stylus against the inscribed character. It is similar to a conventional method and also related to the method of O'Dell, in that candidate characters are displayed for selection on the display device, though there is a significant difference between them that O'Dell method is not related to the character recognition of inputted character by U.S. Pat. 5870492.

Above-mentioned features of the U.S. Pat. No. 5870492 are not related to the present invention.

It is respectfully requested that this patent application be reconsidered, claims 84-103 allowed, and the case passed to issue.

Very respectfully,

Applicant

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